

# Parental Satisfaction for Paediatric Facial Wound Management

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## Objective

- Parental satisfaction of paediatric trauma management within OMFS are rarely monitored
- Paediatric lacerations are usually managed using different techniques – steri strips, glue or sutures, under varying conditions including sedation, local anaesthetic (LA) or general anaesthetic (GA)
- The aim of this audit is to assess the parent's experience/satisfaction for paediatric facial laceration management

## Background

- Most head and neck units have a significant caseload in treating paediatric facial lacerations, with majority being managed under GA
- Several studies have had anecdotal evidence regarding paediatric laceration management techniques and optimal post-operative cosmesis [1]
- Preclinical and clinical data also suggest the possibility of neurotoxicity following exposure of young children to GA [2]. Further to this risk, there is also the cost implication of approximately £400 per night, per paediatric bed.
- Evaluating the outcomes of various closure techniques can be used in formulating a protocol/accepted consensus in managing such clinical scenarios. It can also help minimize patient risk as well as costs to an already stretched NHS

## Results

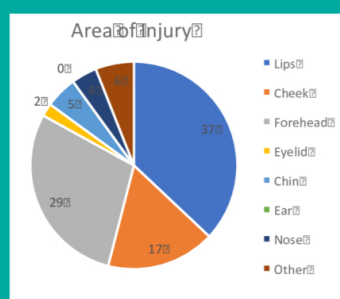


Figure 1: Area of injury

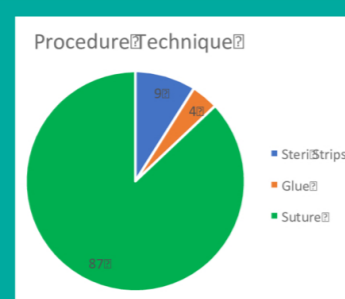


Figure 2: Closure type

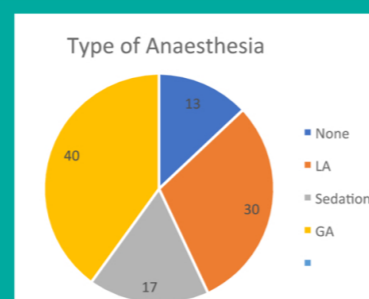


Figure 3: Type of anaesthesia

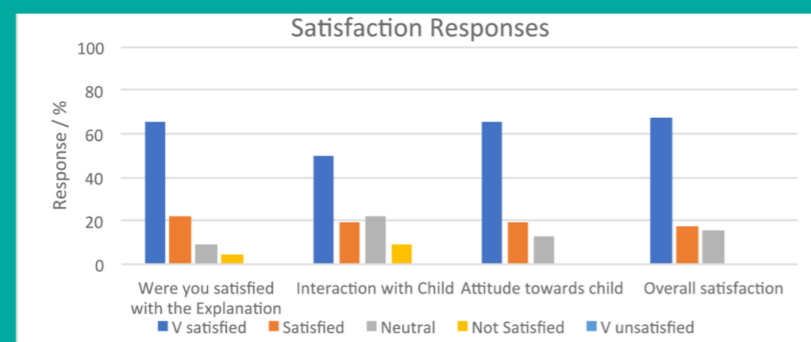


Figure 4: Satisfaction Responses

## Methods and Results

- 100 patients with paediatric lacerations were asked to complete this satisfaction/outcome survey at a busy trauma centre. Demographic data and information on management was also collected. 46/100 completed the survey
- The average age of the patient cohort was 5y2m
- 68% presented to ED with their mother; 71% were referred from another ED to KCH
- Only 56% attended KCH ED on the day of the injury
- 9% of the wounds were <0.5cm, 39% were 0.5-1cm, 28% were 1-2cm and 24% were >2cm
- 87% of the lacerations were managed by OMFS, with the remainder being seen by an ED nurse or doctor
- 63% were discharged on the same day as presentation and treatment
- 84% were very satisfied/satisfied with the treatment received and deemed the cosmetic appearance to be better than expected

## Discussion

- The experiences of patients are vital for clinical governance but they also help identify areas for improvement in our care provision
- When compared to GA, sedation is a more cost and time-effective treatment as it does not involve an inpatient stay and is not dependent on emergency operating lists which in busy units can mean long delays. However, ketamine administration is dependent upon a suitably trained clinician
- Outcomes amongst the different materials for closure are non-variant and patient satisfaction has been similar across all. Despite this, there is a large disparity between closure preferences.
- One study concluded that tissue adhesive glue has the same cosmetic result as suturing when used for the repair of simple lacerations in children [3]
- Another study [1] revealed that 31% of UK OMFS units use non-resorbable in children, which are often removed under GA. Given that there is no clear evidence-based guideline supporting the use of non-resorbable sutures and that the exposure to GA in children carries a risk with unquantified long-term effects on development, we should be vigilant in laceration closure methodology [4]
- In the present study, resorbable sutures were used in the closure of all paediatric lacerations under GA
- The use of LAT Gel should increase patient compliance under LA and reduce hospital admissions for GA, reducing both patient/parent anxiety important in any hospital experience. However, the use of LAT gel was not evaluated in the present study and could be monitored with subsequent studies
- Maximizing usage of the provision for LA/sedation in A&E for this patient population maybe an efficient option in improving our services, reduce time to theatre and importantly, a safer treatment modality

1. Shakib K., Sothinathan R., Mepani V. 2011, 'National survey of treatment of paediatric facial lacerations', *British Journal of Oral and Maxillofacial Surgery*, vol. 49, S1, pp S20-S21.
2. Sanders R.D., Ma D., Brooks P., Maze M. 2008, 'Balancing paediatric anaesthesia: preclinical insights into analgesia, hypnosis, neuroprotection and neurotoxicity', *British Journal of Anaesthesia*, vol. 101, no. 5, pp 597-609.
3. Mattick A. 2002 'Use of tissue adhesives in the management of paediatric lacerations', *Emergency Medicine Journal*, vol 19, no. 5, pp 382-385.
4. McKechine A. 2017, 'Does a scoring system for paediatric facial lacerations predict management?', *British Journal of Oral and Maxillofacial Surgery*, vol. 55, no. 10, pp e139.

